

1 A He, as is from what I have been told from his role
2 in the sales and marketing when we worked at Lancaster
3 Composite, was aware of history and aware of when things
4 occurred and what the history was. He was not, you know, he
5 was not aware of it until during discussions from myself
6 that, hey, this is a problem, if they were selling these
7 things that early.

8 Q And Mr. Baron has since deceased?

9 A Yeah.

10 Q All right. And the secretary?

11 A Her name is in my -- I put it in my, what is
12 that --

13 Q The answers to interrogatories?

14 A Yeah. Remember the Rule 29 disclosure?

15 Q Carol Eagan?

16 A Yes.

17 Q Have you spoken to Carol Eagan?

18 A Not to this time yet.

19 Q Do you know the present residence address of Carol
20 Eagan?

21 A I believe I gave that in my amended
22 interrogatories.

23 Q Has Mr. Shannon told you that he spoke to Carol
24 Eagan?

25 A I didn't ask Mr. Shannon that question.

1 Q How did you come or why is it that you believe
2 that Carol Eagan has relevant testimony?

3 A From discussions with Mr. Shannon.

4 Q All right. Back, then, to challenges to the 889
5 patent. And you have identified the on sale bar. Do you
6 have other challenges to the validity of the 889 patent?

7 A No. I want to make sure we are all talking about
8 the same thing. That's the issue I have with the -- the 889
9 patent, I believe validity is on the sale bar. I believe
10 that because of what's described, it does not describe the
11 Hardcore product.

12 Q Okay. All right. Then let's move on, then, for
13 the 594 patent and ask the same question in terms of
14 challenges to the validity of the 594 patent?

15 A Okay. The 594 patent, validity, I'll go back to
16 the on sale bar issue. Because it's a continuation. It's
17 the fruit of the ones in front of it.

18 Q Okay. Let me stop you there.

19 Is there anything more than what we just talked
20 about for the 889 patent? Are there any additional facts
21 that you think of or information that you have gotten
22 anecdotally that would apply especially to the 594 or is it
23 just the same thing that applies to the 889?

24 A Anecdotally on the 594, I received anecdotal
25 evidence that, again, that this patent was a result of

1 differences that were outlined in the 889, that the 594
2 patent was filed for and reworded to exclude or to get
3 around the Hardcore or to try to exclude the Hardcore
4 product. I have anecdotal, direct testimony from
5 Mr. Shannon that Mr. Green sat with Hardcore brochures while
6 writing the patent for the 594, that Hardcore brochures were
7 actually used to help draft the language in this patent.

8 Q Have you received evidence, anecdotally or
9 otherwise, in support of this other than from Mr. Shannon,
10 this specific point?

11 A No. Again, of the discovery, you know, the
12 documents that I received from discovery didn't help in my
13 quest of working toward some of the issues, both with the
14 594 and the 889. Most specifically issues regarding the
15 textured inner surface. The date, it's yet to be seen that
16 any Lancaster product has ever had a textured inner surface.

17 Q All right. Then let's go back and go through the
18 laundry list of challenges to the 594 patent. We talked
19 about the on sale bar, we have talked about the drafting of
20 the claim language by utilizing Hardcore brochures. Other
21 challenges that you have to the 594 patent?

22 A Again, the challenge I have to the 594 patent is
23 that this is the -- this is describing the Hardcore product
24 that was in process, had been being produced, either with --
25 in some various means for quite a long time prior to the

1 filing date of this one.

2 Q We are going to explore that concept a little bit
3 further. But is there anything else on this list before we
4 get into the details of what you have to support this or why
5 you believe that? But putting that aside, do you have any
6 other challenges to the validity of the 594 patent?

7 A Other than that, you know, other than it has been
8 issued. So I mean you have to say that it is. I mean I
9 don't dispute that it's been an issued patent.

10 Q Somewhere along here, there is some information to
11 the extent that or the suggestion that Mr. Green took
12 something from you or stole something. I forget what the
13 specific language is. I don't want to be focused on the
14 language.

15 But are you taking the position that you would
16 be a co-inventor of the patent, the 594 patent?

17 A I would say my position on the 594 patent, is this
18 describes the work product. Yeah, both my personal and
19 Hardcore's work product.

20 Q Did you ever file anything with the USPTO at the
21 time of the application?

22 A The other thing, I guess what I would toss out
23 there, and this isn't -- I'm, again, not an attorney for
24 that aspect. Is that the -- what's patented here has
25 occurred in a number of other -- the description of what's

1 patented here in the first claim is -- could be describing a
2 number of other products that already exist and are already
3 out there. And one of the issues that we have or I have is
4 that all the information that was given to the Patent Office
5 in terms of other existing, during the execution of the
6 patent, wasn't fully disclosed. Other patents that really
7 are already describing this or something extremely close,
8 and this is just obvious, which is one of the reasons that
9 we did not pursue patenting this part, this exact thing.
10 Because we felt that it wasn't -- that if we disclosed
11 everything, it wasn't patentable, as described here.

12 So basically if you do this, you have -- you're
13 basically describing a steel pipe as well as a composite
14 tube.

15 Q Going back to your point. You did use the phrase
16 some time ago of prior art. I think you're referring to
17 prior art here when you talk about that there was existing
18 products or patents out there?

19 A Correct.

20 Q Are you able to identify for me specific examples
21 of prior art that you believe would have been validated or
22 resulted in this patent not being issues?

23 A Beyond the obvious, which is the Hardcore tubes
24 being used for a number of years. There was other --
25 Creative Pultrusions made a product just like this.

1 Q I'm sorry. Creative --

2 A Creative Pultrusions made a product like this.

3 TPI Composites was making a concrete filled tube as a piling
4 for a number of years.

5 Again, all these -- these players that I'm
6 describing there were involved in the same R&D programs and
7 testing programs that Lancaster was in. So all this was
8 just sitting out. We were all sharing the information.

9 And, again, I have provided those documents in
10 my discovery that show that.

11 Q Let's take these one at a time.

12 As far as you're concerned, you've provided
13 documents that show that Creative Pultrusions was
14 marketing a product that would meet the definition?

15 A Correct. And TPI Composites was -- had marketed a
16 product and sold a product that that met the definition.

17 Q Where is Creative Pultrusions based?

18 A Alum Bank, Pennsylvania.

19 Q Are they still in operation?

20 A Yeah.

21 Q What about TPI? Is it TPIA?

22 A TPI Composites.

23 Q Where are they based?

24 A They are in Rhode Island. But I believe they are
25 called something else now.

1 Q Are there other companies that you contend had
2 products out that would have been relevant to this patent
3 application at the time?

4 A Without going back and doing a little work, off
5 the top of my head, I can't answer that question.

6 Q Are there other companies that you have identified
7 as far as you're concerned in the documents that you have
8 produced to us, other companies' products?

9 A In some of the documents that I produced for you,
10 there may be one or two other companies that may or may not
11 even be doing the same work. Probably are not doing the
12 same work. But are in the documents I produced.

13 Q In addition to the products being produced by
14 these manufacturers, was there, as far as you're concerned,
15 other prior art that would have been relevant to this patent
16 application?

17 A Well, the other prior art is, again, in the 594,
18 there was a lot of work had been done on concrete repair and
19 the seismic retrofitting, which is -- you even started
20 asking me. I guess it was on this document here.

21 A lot of the work that was done out in the west
22 coast had to do with tubular structures filled with
23 concrete, grouted with concrete, you know, continuously
24 made tubes grouted with concrete.

25 Q You say a lot of work done. Are you able to

1 identify who was doing that work?

2 A The UCSD. I mean the State of California and the
3 University of Southern California was the head of it. There
4 is a whole seismic retrofit program.

5 Q Are there any individuals that you recall
6 specifically identified with that work?

7 A Not off the top of my head. A lot of it is in the
8 documents I provided for you.

9 Q Okay. Back, then, to the general challenges to
10 the 594 patent. We talked about the on sale bar. Now we
11 have really been talking about things that would fit in the
12 category of prior art, which would include the Hardcore
13 tubes and then the products of these other companies that
14 you have identified and then the work from the University of
15 Southern Cal on seismic retrofit.

16 Anything else generally that you can recall that
17 would come into the category of prior art in the development
18 of this patent?

19 A At this point in time, no.

20 Q Other than all of that that I have put into the
21 category of prior art and the on sale bar, do you have
22 challenges to the 594 patent?

23 A Do I have -- other than what we have been
24 discussing?

25 Q Yes.

1 A No. As I understand it.

2 Q Earlier, you were talking about testing that had
3 gone back into as early as the early nineties. And you were
4 talking about CPAR, was it?

5 A Yes.

6 Q What is CPAR?

7 A It's an acronym for -- it's in the documents I
8 produced. I don't want to bastardize attempting to --

9 Q Now, were you personally involved in any of that
10 testing?

11 A Well, that started before I was there and then
12 that CPAR program evolved into this piling development group
13 that the MDA was part of. It kind of went from the
14 government level to the like industry level, the industry
15 took over. Like I said, myself and Mr. Green and a number
16 of other people were all on the same committees and went to
17 the same meetings discussing how to make composite pilings
18 and where we should take the industry. And I have produced
19 reams of minutes from those meetings.

20 Q You personally became involved after you began
21 your employment with Hardcore DuPont?

22 A Yeah. It was as one of my duties I needed to take
23 care of.

24 Q Now, when you came into that position through
25 Hardcore DuPont, did you come into possession of minutes,

1 test results, whatever, prior to your arrival?

2 A Correct. And I have turned them over.

3 Q You identified several people who may have -- do
4 you need a break?

5 A No. I'm okay. I have a cold. Sorry.

6 Q You had identified a series of people who might
7 have some relevant information. We have talked about a
8 couple of them already. But we haven't talked about Jeff
9 Pote?

10 A Pote. P-o-t-e.

11 Q What was Mr. Pote's role with this or relationship
12 to this?

13 A Jeff Pote was an engineer that had been employed
14 at Hardcore for quite a long time prior to -- he was there
15 since the early days. I don't know -- I can't tell you his
16 exact first hire. But he was there before it was even
17 Hardcore DuPont. He was there when it was just Hardcore
18 before, you know, they did the joint venture. And so his --
19 he had knowledge on what they were doing first-hand, you
20 know, knowledge of what they were doing back in the very
21 beginning and what they were doing with certain testing and
22 development of products.

23 Q What, if any, relevant information do you believe
24 Mr. Pote has related to this litigation?

25 A I believe the information that he would have would

1 be to corroborate dates that would back up documents that I
2 have produced. You know, I produced documents from way back
3 in the early days that he would corroborate that certain
4 things were being done, certain things were going on, as
5 well as he was employed by Hardcore all the way to the end.
6 So he would verify, you know, that we were making things,
7 what jobs were coming in. That sort of stuff.

8 Q Have you talked with Mr. Pote since the initiation
9 of this litigation?

10 A Well, this litigation got initiated before
11 Hardcore's demise.

12 Q Okay. What about since the close of Hardcore,
13 January of '05, let's say?

14 A Not a lot. He is working down, from what I
15 understand, because I was friendly with Jeff, too, slightly,
16 outside of work. Not buddies or whatever but I knew him.
17 He is working at Sea Ray Boats now doing VARTM work for
18 them.

19 Q Let me go back. We have talked several times
20 about Mr. Shannon. Was there any relationship between
21 Mr. Shannon and Hardcore?

22 A Yeah.

23 Q Or any company that Mr. Shannon was with?

24 A Yeah. Steve Shannon had like an independent sales
25 company he represented. He was a sales rep for Hardcore.

1 Q When did that begin?

2 A I can't honestly tell you.

3 Q Was he a sales rep as of December '04 or January
4 of '05?

5 A Yes.

6 Q Have you had any business relationship with
7 Mr. Shannon since the close of Hardcore in January of '05?

8 A Only the issue with helping Seaward out because
9 that Seaward job, somehow he was working with them on that
10 project. So my helping him out with getting those things
11 done was partly because I felt like I owed him something.

12 Q All right. Different name. Grant Corboy. Was he
13 an employee of Hardcore?

14 A Yes.

15 Q What was his role or position at Hardcore?

16 A He was another engineer that had been there
17 from -- as long as Mr. Pote had been. So same issues.
18 Grant also did almost all the work with the retrofit work.
19 So he has information about what was done with shells and
20 tubes and things that are outside the piling wall.

21 Q Was Mr. Corboy with Hardcore up until its demise?

22 A No. Grant had left to go to -- I think he went to
23 Lockheed Martin. Like a year, two years before the end.

24 Q Have you had any discussions with Mr. Corboy since
25 the initiation of this litigation?

1 A No. Actually, I haven't actually spoken to
2 Mr. Corboy since he left.

3 Q What about George Green? Was he an employee of
4 Hardcore Composites?

5 A Yeah.

6 Q And what was his role or title there?

7 A He was, again, he was a factory -- he was kind of
8 a head factory work guy. He was like a shop foreman.

9 Q He was there when you got there?

10 A Yeah, he was there when I got there. And he
11 worked -- he was one of the initial people that worked on
12 the tubes.

13 Q What was his role?

14 A He was like a foreman. He was like a factory
15 hands-on kind of guy. He had a lot of just hands-on
16 knowledge.

17 As I spoke earlier, Mr. Green is listed as one
18 of the co-inventors on one of the patents that I do own.
19 Because he did provide insight and ways to solve some of
20 the problems on this particular one. So he has some
21 knowledge.

22 Q Was Mr. Green with Hardcore up until its demise?

23 A No. Actually, Mr. Green went to work for George
24 Tunis. George Tunis has some company down in Maryland
25 called Hardwire.

1 Q Hardwire?

2 A Hardwire.

3 Q And when did Mr. Green leave Hardcore?

4 A 2001 maybe. 2000. It was not far after I took
5 sole ownership.

6 Q Have you spoken to Mr. Green in connection with
7 this litigation since its initiation?

8 A No.

9 Q Have you had any business dealings with Mr. Green
10 since he left Hardcore?

11 A With George?

12 Q Yes, sir. I'm sorry. George Green.

13 A On a couple things that I had talked about
14 earlier. I guess, because he is now back in town, I sought
15 his input on a couple things. He has a motorcycle shop now.

16 Q So he is no longer with Mr. Tunis?

17 A No. He left Mr. Tunis. He owns some motorcycle
18 shop and builds motorcycles.

19 Q And what information or testimony do you think
20 would be relevant from Mr. George Green relevant to this
21 litigation?

22 A He was working on -- he was like -- he was
23 employed since like Hardcore's inception back, again, when
24 it was just Hardcore. So he was working on the tubes from
25 day one from a hands-on level. So the reason I listed him

1 is because there is a number of different people
2 corroborating how things were made and the evolution of
3 things and time frame of when stuff was developed.

4 Q What about David Harris, was he employed by
5 Hardcore?

6 A Yep.

7 Q What was his title or position?

8 A He was an engineer.

9 Q Was he there when you got there?

10 A Yeah, he was there when I got there.

11 Q Was he there until its demise?

12 A No. He left. Probably about the same time
13 Mr. Corboy did, I believe. He went to work for a company
14 called Anholt Technologies up in Pennsylvania. And then I
15 hear he has since left them. I don't know where he is.

16 Q Have you had any discussions with Mr. Harris since
17 the initiation of this litigation?

18 A No.

19 Q What information or evidence do you believe that
20 Mr. Harris would have that's relevant to this claim?

21 A The same as before. Just corroborating dates and
22 work done.

23 Q A different document. You have identified
24 Coastline Composites, Inc., representatives of that company
25 as perhaps having some relevant information.

1 What's the connection of Coastline Composites,
2 Inc.?

3 A I believe that that's another firm that
4 Mr. Shannon is involved with or does rep work through. He
5 had one or two different companies that he represented
6 himself as or something. So I felt that I was supposed to
7 write down everything that I know.

8 Q As far as you know, does Coastline Composites put
9 out composite tubing or pilings?

10 A No. I think it's just like a name of -- you know
11 what I mean. They don't sell anything.

12 Q You also identify a company, Northeast Concrete
13 Products, LLC.

14 A Correct.

15 Q What's their connection to this, possible
16 connection?

17 A At this point right now, they are, from what I
18 understand, the sole rep for the Lancaster product.

19 MR. ANASTASI: Can you read that back, please,
20 the question and answer?

21 (The reporter read back as instructed.)

22 MR. WERNER: We are ready for another short
23 break here.

24 (A brief recess was taken.)

25 BY MR. WERNER:

1 Q Off the record, sir, you indicated you wanted to
2 clarify or amend something that you said?

3 A Yeah. Yes, I did. I remembered what -- you had
4 been asking me about on the 594 patent, what issues I had,
5 why it wasn't the -- what differed from the Hardcore
6 product.

7 Q Yes, sir.

8 A And I was just kind of drawing a blank. I'm
9 sorry. In the interim while you were discussing, I was able
10 to recall what the issues are.

11 Q Okay.

12 A A couple things. On claim one, it says, a fiber
13 reinforced resinous hollow structure having a tensile
14 strength of at least 30,000 p.s.i.

15 Our -- my contention, our contention is that
16 you're asking did the structure itself have a tensile
17 strength of 30,000 p.s.i., which differs in the claim 889,
18 which differs in the claim of the 889, which goes towards
19 the fiber rovings have a tensile strength and, excuse me,
20 the second part of that is then they also have to have -- it
21 says, the Hardcore being formed from a mixture of
22 particulate cementitious material and liquid such that when
23 said mixture hardens, said core is joined securely to the
24 inside surface.

25 I take exception. The joined securely is not

1 just -- that that lends itself that it's bonded to the
2 inside surface as opposed to was stuck against it or
3 friction fit in.

4 Q So it's your position that the Hardcore product,
5 when it was filled with cement, was not joined securely to
6 the --

7 A No, it was not joined securely to the --

8 Q Because it was, in your terminology, mechanically
9 locked?

10 A Yes.

11 Q And why is it, at least in your opinion, that a
12 mechanically locked situation is not joined securely?

13 A The way I would define that, joined securely would
14 be along the lines of like glued to, stuck to.

15 Q That would be chemically locked, right, glued to?

16 A Well, you're asking me to define what I consider
17 joined securely.

18 Q You're right. Go ahead.

19 A That's your definition. Joined securely means
20 that it's become one with the inside surface.

21 Q All right.

22 A So I just wanted to clarify that.

23 Q I wasn't quite clear on what distinction you were
24 drawing earlier on. The claim calls for a hollow structure
25 having a tensile strength of at least 30,000 p.s.i. Are you

1 saying that the Hardcore product did not --

2 A The way I'm reading this is that -- the way I'm
3 reading this is that you're saying that the hollow structure
4 itself has a tensile capacity of 30,000 p.s.i.

5 Q And you're saying that the Hardcore product would
6 not meet that claim?

7 A As you're defining that claim, there is an
8 engineering difference in the way that that's written versus
9 the claim of the 889.

10 Q Well, I understand it's written different than the
11 889. My question is what Hardcore product meets that
12 definition in that claim?

13 A For any specific tube that Hardcore would make, I
14 can't tell you whether it would have 30,000 p.s.i. tensile
15 or not. There is a difference between the tensile of the
16 actual tube and tensile properties of the materials.

17 Q I don't have an extra copy of the document I'm
18 going to show you. We'll see how far we get into it. Maybe
19 I'll have it marked and copy it at that point.

20 Among the documents that you provided to me
21 were some information and correspondence from the Nilles
22 & Nilles law firm. And one is this letter July 11,
23 2000, referencing the 594 patent. And I'm going to ask
24 you to take a look at that.

25 You'll see on the bottom of the second page, I

1 think it shows a cc: letter going to you, correct?

2 A Correct.

3 Q Do you recall the letter?

4 A I recall a number of these letters.

5 Q Well, this one specifically, as you'll see at the
6 bottom of the first page, is requesting a search on the 594
7 patent. Do you see that, the last full paragraph?

8 A Yes.

9 Q Are you aware of whether or not a search was ever
10 done on the 594 patent?

11 A I can't tell you yes or no.

12 Q Are you aware of the results of any such search if
13 such a search was conducted?

14 A Well, I know that Nilles & Nilles issued an
15 opinion. I can't tell you whether the search was done or
16 not.

17 Q Is it your testimony that Nilles & Nilles -- I'll
18 use your pronunciation -- issued an opinion on the 594
19 patent?

20 A Excuse me?

21 Q Is it your testimony that Nilles & Nilles issued
22 an opinion on the 594 patent?

23 A No, I don't believe they did.

24 Q And is there a reason that they did not issue an
25 opinion on the 594 patent?

1 A I believe only that they weren't asked to do
2 further work.

3 Q Getting back to, were you the one that had
4 requested Nilles & Nilles to do a search on the 594 patent?

5 A This started out when we were part of SKW Group,
6 Harris Group.

7 Q Okay. And what started out when you were part of
8 that group?

9 A Excuse me?

10 Q My question, we started with the question of, did
11 you request the Nilles & Nilles firm do a search on the 594
12 patent?

13 A No, I don't believe that I requested further
14 action.

15 Q And what was your reason or decision for not
16 requesting any further action?

17 A I believe at the time, let's call it the dust had
18 settled. This had kind of gone to the back burner. We were
19 doing other things. So we didn't spend anymore money on
20 this.

21 Because I believe at that time there is also a
22 series of letters where the attorneys for SKW, or Nilles
23 & Nilles acting on behalf of SKW, and SKW had asked
24 Mr. Green's attorneys at the time, I don't know whether
25 they were you or somebody, to come up with some other

1 backup evidence that never was produced and we just put
2 this on the back burner.

3 Q There is a lot of communication on the 889 patent.
4 There isn't as much communication on the 594. And I'm
5 focusing right now on the 594.

6 A Yeah. And I can't answer that question for you.
7 Other than, as I said, I believe it just kind of went to the
8 back burner.

9 Q Sitting here today, do you have any information as
10 to the results of anybody's patent search on the 594,
11 whether it was Nilles & Nilles, this one or by someone else?

12 A Other than anything that's been produced, no.

13 Q I've got a series of documents, which I am not
14 going to mark them right now. I'm just going to show them
15 to you. Because they are already part of the record. They
16 were part of what was attached to our complaint.

17 I'm showing you four documents that appear to be
18 or appear to be Hardcore Composite quotes. These are
19 attached to the Lancaster Composite complaint and they were
20 documents that I had asked you about in a deposition in a
21 related matter. Do you recognize those documents?

22 A Yeah, I have seen them before.

23 Q At the time of your deposition in the bankruptcy
24 matter, that was back in October of 2004, your testimony was
25 that as far as you were concerned, all these quotes were

1 still open.

2 Did any of these quotes ever result in any work to
3 Hardcore?

4 A No. From the bankruptcy time on, the only work
5 that, while we were in bankruptcy that we did, was finished
6 the windfaring project for the Cooper River Bridge, got
7 halfway through some flood wall stuff for the city of New
8 Castle and got halfway through making composite whalers for
9 a job in New Jersey. And then that was it.

10 MR. WERNER: I'm going to mark these
11 collectively as 6.

12 (Hemphill Deposition Exhibit No. 6 was marked
13 for identification.)

14 BY MR. WERNER:

15 Q In reviewing the documents here, would any of
16 these proposals involve the use of concrete filler in the
17 Hardcore tubing?

18 A I know, without sounding coy, I don't even
19 recognize some of these projects.

20 Q Is there anything you can ascertain from reviewing
21 the documents as to whether or not they would have involved
22 the process of Hardcore filling the tubing with concrete?

23 A I can't say. If it involved us -- I mean if it
24 involved filling them with concrete, it would have stated on
25 there as a separate item.

1 Q And not seeing that there would suggest to you
2 that that was not part of these proposals?

3 A Yeah.

4 (Hemphill Deposition Exhibit No. 7 was marked
5 for identification.)

6 BY MR. WERNER:

7 Q Take a look at what I have had marked as 7.

8 A Okay.

9 Q Have you seen that document before? That perhaps
10 is an unfair question. I presented that document to you at
11 your deposition back in '04. Let me ask if you have seen
12 that document in the context of your operations at Hardcore?

13 A Yeah.

14 Q Can you tell me what this document is?

15 A I believe, to the best of my recollection, it's
16 dated three years ago, was Seaward was going to bid on a job
17 out at Pier 12 in San Diego and they asked to sell our pile
18 to the job site.

19 Q And what was your connection with Seaward at that
20 point? Who was your contact?

21 A Steve Shannon was acting as like a go-between.
22 This is something that I think, if I can -- I can't really
23 remember. It was worked through him.

24 Q Did this involve the use of concrete filler in a
25 Hardcore post?

1 A To be honest, I can't even remember. I mean it
2 doesn't say. There is nothing on this to suggest that it
3 does. I can tell you that there is no way we were -- that
4 anybody was going to ship concrete piles from here to San
5 Diego.

6 Q Did this project come to fruition; that is, did it
7 become a project for Hardcore?

8 A No.

9 Q You were telling me earlier about the one project
10 that you have worked on with Seaward since the operations at
11 Hardcore ended. What about from the filing of this lawsuit,
12 '04, until the time that operations ended, were there any
13 projects in which Seaward and Hardcore worked together?

14 A No.

15 (Hemphill Deposition Exhibit No. 8 was marked
16 for identification.)

17 BY MR. WERNER:

18 Q Have you had a chance to look at what I have
19 marked as Deposition Exhibit No. 8?

20 A Yes.

21 Q Have you seen this document outside the context of
22 me showing it to you at a previous deposition?

23 A I can't say whether I have or I haven't.

24 Q You'll see the time frame is September of 2004.
25 So that was after the company, that is after Hardcore had

1 filed for bankruptcy, correct?

2 A Correct.

3 Q There appears to be a fax cover sheet to a Bob
4 Schmidt, E.I.C. Do you know who that is?

5 A No, I don't.

6 Q Do you know who E.I.C. is?

7 A I believe its an engineering company. But I'm not
8 sure.

9 Q From a Steve Shannon. You know who Steve Shannon
10 is, correct?

11 A Yes.

12 Q The subject, then, is, Hardcore Composite Fender
13 Pile Quote, South Jersey Port, Piers 1 & 1A. Do you see
14 that?

15 A Yes.

16 Q Does that subject line refresh your recollection
17 as to any project that was in the bidding stage or in any
18 stage in September of '04?

19 A You know, I honestly can't remember. I know Steve
20 put out a lot of quotes for things because he was acting as
21 a rep. So I mean he would basically ask for a price on
22 something, on the price of a pile.

23 Q Do you have any recollection of this project
24 specifically, a South Jersey Port Pier 1 and 1a?

25 A No.

1 Q Do you know if the --

2 A I know we didn't make any piles for it. So I
3 don't know what happened to it.

4 Q We being Hardcore?

5 A Hardcore, yeah.

6 Q This didn't result in any type of work for
7 Hardcore, this quote?

8 A No. I think I already testified as to the work
9 that was done.

10 Q Can you tell, looking from this, whether this
11 would involve the, at least in its quote or idea stage, the
12 insertion of concrete filler into the Hardcore post?

13 A As best as I can see, and this is just best guess,
14 that the per foot price, that that would not have any
15 concrete associated with it.

16 MR. WERNER: This is our last break. I think
17 we are just about done.

18 (A brief recess was taken.)

19 BY MR. WERNER:

20 Q On Exhibit No. 8, one of the references is to
21 Lehigh testing results. Do you see that?

22 A Okay.

23 Q What was tested at the Lehigh University flexural
24 test report?

25 A I believe that's the same -- that's the same set

1 of testing that was referenced in one of these earlier --
2 you already asked about it. There is actually a picture of
3 it being tested. Right there. You already referenced that.

4 Q That's in Deposition Exhibit No. 1?

5 A Yeah. And that report and any of the other
6 testings that might have been done at Lehigh has been
7 produced.

8 Q But the Lehigh testing that they are talking about
9 here has to do with concrete filled fiberglass tubes,
10 correct?

11 A Correct.

12 Q So although Hardcore itself may not have been
13 filling the concrete in the tube, it was, at least the way
14 you read this, it was anticipated that it was going to be
15 ultimately a concrete filled tube, if they are referencing
16 the Lehigh University flexural test?

17 A Well, no, because we also -- in that report, there
18 is filled and unfilled tubes that were tested at Lehigh.

19 Q All right. Is Lehigh testing part of the
20 documentation you provided us?

21 A Yes. I just said that.

22 MR. WERNER: Okay. Those are the only
23 questions that I have. Thank you.

24 (Deposition concluded at 2:38 p.m.)
25

I N D E XDEPONENT: WILLIAM SCOTT HEMPHILLPAGE

Examination by Mr. Werner

2

E X H I B I T S

HEMPHILL DEPOSITION

NUMBER	DESCRIPTION	MARKED
1	Composite Tubular Piling Specification Guide	47
2	Hardcore Composites Specification Data	53
3	Hardcore Composites Hardshell Composite Pile Strengthening Jackets	68
4	Photograph	73
5	Photograph	73
6	Hardcore Composites Quote Prepared by Jeff Pote	134
7	Letter dated August 7, 2003, to Tim Linden from Bryan Maphis	135
8	Fax dated 9/15/04 to Bob Schmidt, E.I.C. from Steve Shannon	136

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AFTER IT HAS BEEN
COMPLETED AND SIGNED
BY THE DEPONENT.

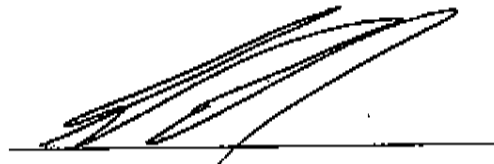
1 State of Delaware)
2 New Castle County)

3
4 CERTIFICATE OF REPORTER

5 I, Allen S. Blank, Registered Merit
6 Reporter and Notary Public, do hereby certify that there
7 came before me on the 6th day of June, 2006, the deponent
8 herein, WILLIAM SCOTT HEMPHILL, who was duly sworn by me and
9 thereafter examined by counsel for the respective parties;
10 that the questions asked of said deponent and the answers
11 given were taken down by me in Stenotype notes and
12 thereafter transcribed by use of computer-aided
13 transcription and computer printer under my direction.

14 I further certify that the foregoing is a
15 true and correct transcript of the testimony given at said
16 examination of said witness.

17 I further certify that I am not counsel,
18 attorney, or relative of either party, or otherwise
19 interested in the event of this suit.

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Allen S. Blank, RMR
Certification No. 103-RPR
(Expires January 31, 2008)

DATED: June 13, 2006

Exh. 1



618 Lambsons Lane, New Castle, DE 19720
Phone: 302-442-5900, Fax: 302-442-5901

Composite Tubular Piling Specification Guide

Introduction

A composite tubular piling is a cylindrical shell fabricated of high-strength fiber reinforced composite materials. As an option, the outer surface of the shell can be coated with a rubber toughened, acrylic skin. The acrylic skin provides additional protection against abrasion, ultraviolet (UV) light, and chemicals.

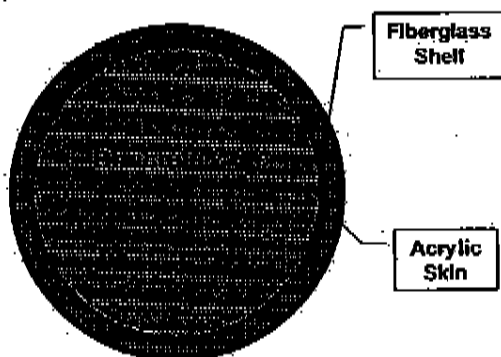


Figure 1 - Concrete filled fiberglass tubular piling

The inner surface is textured to create a mechanical lock with a filler material, usually concrete. The piling is molded, shipped and driven as a hollow shell and then is filled with concrete or other appropriate core material. If required, the piling can be filled with concrete at the Hardcore Composites factory and shipped as a complete unit.

The resulting structure is a piling system with approximately the same stiffness as timber piling, but is 4 times stronger and 15 times more energy absorbent.

Industry standard driving equipment including diesel, vibratory and drop-hammers can be used to install the composite piling. The piling can be driven either open ended or with a variety of driving shoes. A standard pipe pile driving helmet or equivalent is used in most applications. The piles are easily cut, drilled and attached using ordinary tools found at most job sites.

Hardcore Composites fabricates fiberglass tubular piling using VARTM, vacuum assisted resin infusion method. This production technique results in less than 0.5% voids in the composite. In addition to the standard sizes offered, custom sizes up to 60-inch diameter in shippable lengths are available.

Availability

Hardcore composite tubular piling are available in standard diameters from 10 to 18 inches in any shippable length. Other sizes are available up to 60 inches in diameter. The standard products are listed in Table 1. Standard composite tubular piling is fabricated using fiberglass. Custom hybrid glass/carbon fiber composite tubular piling that offers higher stiffness are also available. The optional acrylic skin is available in most colors, however, the standard color is black.

Table 1 – Standard Composite Tubular Piling

Product Identification	Nominal O.D. (in)	Fiberglass Shell Thickness (in)	Optional Acrylic Skin Thickness (in)
10-2	10.00	0.182	0.030
12-2	12.75	0.182	0.030
12-3	12.75	0.273	0.030
14-3	14.00	0.273	0.030
18-3	18.13	0.273	0.040
18-4	18.13	0.364	0.040

Mechanical Behavior

The fiberglass tubular piling is designed to resist tensile, compressive, shear, and torsion stresses. The concrete filler is also used to carry compressive loads and enhances bending performance. Because of the textured inner surface of the piling, mechanical interlock is developed between the concrete and the composite piling. The resulting hybrid structure can carry both bearing and lateral loads while providing energy absorbing capacity. In general, composite tubular piling has the compliance of timber, the strength of steel and the durability of plastic.

Design Properties



Figure 2 - Three-point bending test

Concrete filled fiberglass tubular piling is characterized for performance in two ways. The first is by lateral load capacity and the second is by axial load capacity for bearing. Lateral load carrying capacity is determined by flexural testing. Bearing capacity is dependant on the soil properties in which the piling is driven and is typically determined by driving history.

Flexural testing of the standard Hardcore Composites tubular piling was performed at the ATLSS Multidirectional Laboratory at Lehigh University. Specimens were tested filled with concrete. The nominal concrete strength was 4000 psi. Each specimen was tested in three-point bending with a 16:1 span to diameter ratio. Load was applied at mid-span. Testing protocol consisted of loading

to 25% of predicted maximum deflection at a rate of two inches per minute; return to zero; load to 50% of predicted maximum deflection; return to zero; then finally test to failure. Table 2 lists the ultimate flexural properties of the standard tubular piling.

Table 2 -- Flexural Data: Fiberglass Tubular Piling

Product Identification	Bending Stiffness ¹ , EI (lb-in ²)	Ultimate Bending Moment ² (in-lb)
10-2	4.49×10^8	1.15×10^6
12-2	9.78×10^8	2.04×10^6
12-3	1.38×10^9	2.80×10^6
14-3	1.76×10^9	3.43×10^6
18-3	4.59×10^9	5.66×10^6
18-4	5.78×10^9	7.60×10^6

Composite tubular piling in bending behaves in a nonlinear fashion. Because of this, it is necessary to define regions in the load/deflection curve to calculate various mechanical properties. Figure 3 shows the locations on the load/deflection curve where the initial, secant and tangent flexural moduli are typically computed. Additional data is available for high load ranges. Contact Hardcore Composites for design information.

¹ Bending stiffness calculated at 20% of ultimate bending moment

² In practice, piling should not be used at its ultimate moment capacity. A factor of safety should be used. It is recommended that piling be stressed to no more than 20% of ultimate moment capacity. However, the appropriate factor of safety may vary at the designer's discretion for particular applications.

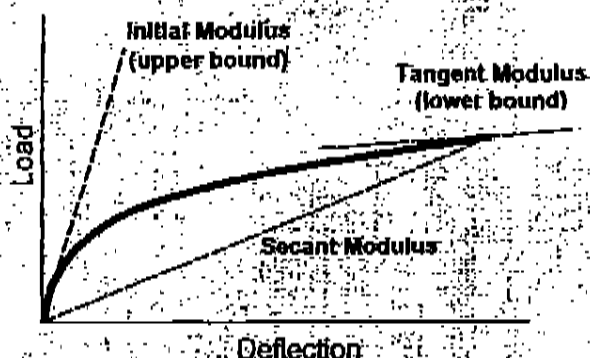


Figure 3 - Typical load/deflection behavior of fiberglass tubular piling in flexure

The initial modulus represents the elastic behavior using the "small strain" assumption.

The tangent modulus can be defined at any point along the load/deflection curve. The tangent modulus of each standard tubular piling is computed at the maximum load and deflection. Similar to the tangent modulus, the secant modulus can be defined between any two points on the load/deflection curve.

Computations for Data Reduction

The flexural stiffness of the tubular piling is defined by the equation:

$$EI = KL^3/48$$

3-point bending flexural stiffness

where: EI = flexural stiffness (lb-in²)
 K = slope of load/deflection curve (lb/in)
 L = span length (in)

A given force (load) is used to calculate the effective moment, M_{eff} , at any point in the load/deflection curve.

$$M_{eff} = PL/4$$

3-point bending moment

where: M = moment (in-lb)
 P = load (lb)

Finally, the maximum strain energy is calculated by:

$$U_{max} = (M_{max})^2 / 2EI$$

maximum strain energy

where: U_{max} = maximum strain energy (lb)

Applications and Use of Tubular Composite Piling

Tubular piling fabricated by Hardcore Composites is highly adaptable and can be specified for several uses. The most common uses are for structures that aid the berthing of marine vessels and for load bearing.

Mooring Applications

Typically piling acts a cantilever beam with both axial and lateral loads applied near the top and the base of the piling fixed below the mud line (Fig. 4). In most cases, the axial loads on a dolphin are relatively small compared to the lateral loads from berthing

vessels or wave action. To further reduce impact forces, Hardcore Composites recommends the use of composite fender elements.

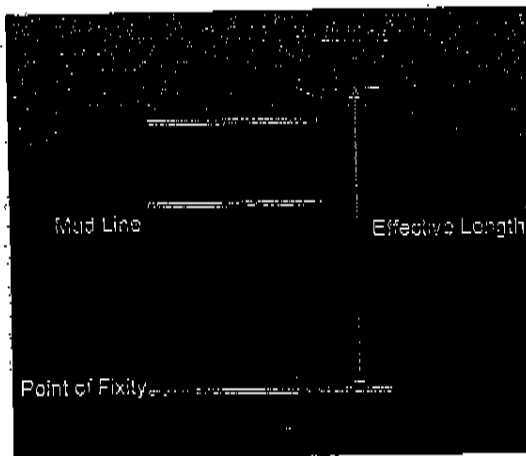


Figure 4 - Dolphin pile configuration

For mooring applications, tubular composite piling can be configured as a single piling dolphin or as a piling cluster. Single pile dolphin construction typically requires large diameter composite tubular piles. Hardcore Composites recommends diameters greater than 24-inches for this purpose.

A cluster of smaller piles can also be used to construct a dolphin. Typically a timber dolphin has many individual piles in its construction. In many cases, the timber

piling must be closely spaced so that the core piles reinforce the exterior piles during lateral impact. Because composite piling have far greater bending capacity than timber piling, fewer composite piles are required for the same structure. Figures 5 and 6 compare the design of a timber dolphin at the corner of a pier to the same dolphin constructed with composite tubular piling and a pile cap. Notice that to serve the function of protecting the corner of the pier, the composite piling and cap concept requires far less pile driving. Additionally, more usable deck area can be created while the overall structure is aesthetically more pleasing and virtually maintenance free.

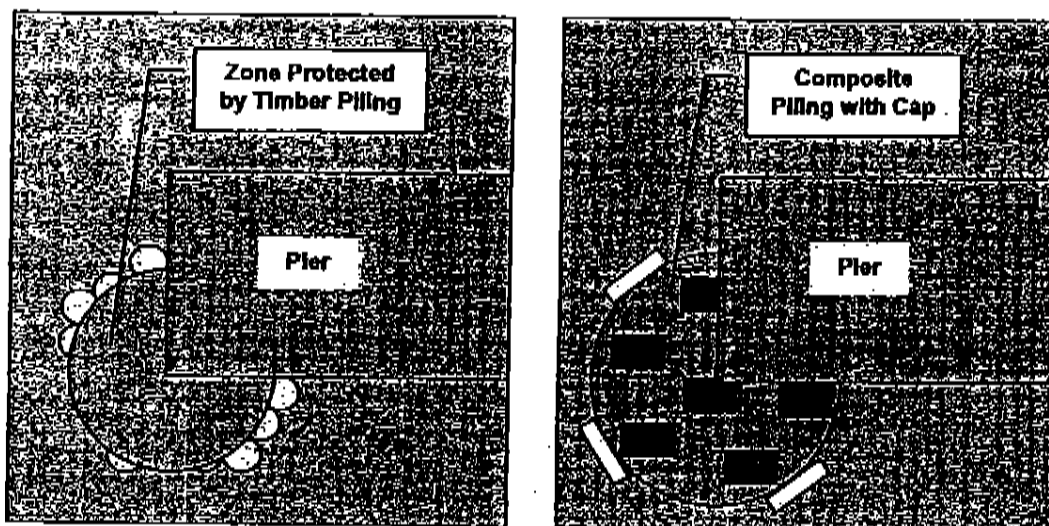


Figure 5 - Plan view of timber and composite dolphin construction concept

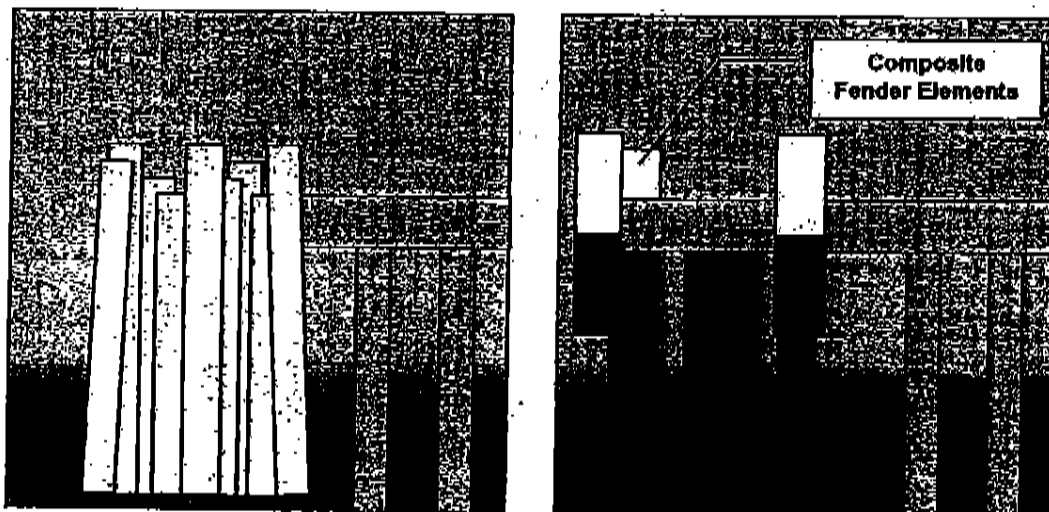


Figure 6 - Elevation view of timber and composite dolphin construction concept

Project Profile of Composite Piling and Fender Construction

Project Background:

Owned by the Delaware River and Bay Authority (DRBA) the ferry system serving the Delaware Coast and the Jersey Shores provides a valuable destination and transportation route across the Delaware Bay.



Figure 7 – Original timber dolphin

The Authority has selected Hardcore for numerous reconstruction projects at the ferry berths at Lewes, Delaware and Cape May, New Jersey.

The original pier end of the Lewes berth was protected by a dolphin constructed with timber piling and protected by steel plates (Fig. 7). Corrosion of the metal, splintering of

the timber and potential attack from marine boring organisms required a significant investment for routine maintenance.

The Hardcore Composites Solution:

Replace existing structure with a corrosion resistant, energy-absorbing dolphin.



Figure 8 – Reconstructed pier end

Hardcore Composites designed and fabricated an energy-absorbing dolphin at the pier end (Fig. 8). This was accomplished by integrating a fender panel system with cast in place concrete reaction blocks. A reinforced concrete deck cast in a composite stay-in-place (SIP) forming system supports the reaction blocks. The deck acts as a pier cap tying forty-four 18-inch diameter composite piles together. The resulting dolphin at the pier end is capable of absorbing the forces generated by 2100-ton ferry vessels moving at 3 knots.

The new dolphin was constructed by removing over 200 timber piles. Temporary piles were then driven to create a protected work zone from the construction crew.



Figure 9 - Composite piles cut to elevation. SIP formwork prepared for concrete placement.



Figure 10 - Hardcore Composite FFP1 Fender Panel and concrete reaction block

Composite SIP formwork was designed to serve as a template for vibrating the 44 composite replacement piles and to mold the cast in place concrete. The SIP formwork was fabricated in one piece to speed installation. After placement of the SIP formwork, vibration of the 44 composite piles took two days. An epoxy coated rebar cage was placed in the SIP formwork and concrete was tremmie placed into the composite piles and the form creating a monolithic structure.

The resulting structure is both functional and aesthetically pleasing. The tubular piling feature a rubber-modified acrylic skin that provides abrasion resistance and protection from ultraviolet light. The fenders feature an Ultra High Molecular Weight Polyethylene (UHMW PE) wear surface in an attractive color scheme.

Project success is attributed to an effective working relationship between Hardcore Composites, the owner and the contractor. The team arrived at the best solution through a value engineering, construction productivity, life cycle cost and routine maintenance analysis.

Bearing Applications

Bearing capacity of composite piling, just as traditional piling, is controlled by the surrounding soil conditions. For design, the capacity of composite piling is determined by skin friction along the length of the piling and the tip bearing. The skin friction of composite piling is similar to steel H-pile. Because of the custom manufacturing of Hardcore Composites tubular piling, the skin friction can be increased by bonding aggregate to the outer surface. Table 6 lists the driving history for several installations.